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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,082	07/30/2003	Hea-Chun Lee	21C-0056	2199

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EXAMINER	
HAN, JASON	
ART UNIT	PAPER NUMBER
2875	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/632,082	LEE ET AL.	
	Examiner	Art Unit	
	JASON M. HAN	2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 March 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-36* is/are pending in the application.

4a) Of the above claim(s) *14-28* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-13 and 29-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to Claims 1, 3-13, and 29-33 have been considered but are moot in view of the new ground(s) of rejection. At present, the prior art to Ishida et al. (U.S. Patent 7,057,678 B2) remains commensurate to the scope of the claims as stated by the Applicant within the context of the claim language and as broadly interpreted by the Examiner [MPEP 2111], which is elucidated and expounded upon below.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3-5, 13, and 35-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Ishida et al. (U.S. Patent 7,057,678 B2).

4. With regards to Claim 1, Ishida discloses a lamp assembly including:

- At least two lamps [Figure 1: (27)], whereby each of the lamps being of a fluorescent bulb type [Column 1, Line 43; Column 2, Line 1], which are commonly known in the art and inherently provide a fluorescent layer formed on an inner surface of a lamp body, a discharge gas disposed in the body,

first and second electrodes [Figures 1: (29)] for providing the lamp body with first and second discharge voltages, respectively;

- A first lamp holder [Figure 1: (26)] having a pipe-shape, whereby a first end portion of the lamp is inserted into the pipe-shape and fastened to the first lamp holder;
- A first board [Figure 1: (28)] having a flat plate shape and is coupled to first electrodes of the lamps to provide the first electrodes with a first discharge voltage, whereby the first board includes:
    - = A first insulated body [Figure 1: (28)] having a first inward surface [Figure 1: opposite (28a)] that makes contact with the first lamp holder and a first outward surface [Figure 1: (28a)] that is opposite to the first inward surface;
    - = A first conductive pattern formed on the first outward surface of the first insulated body [Column 2, Lines 6-14 – inherent that (28a) would have a conductive pattern to electrically connect (29) with the inverter mentioned in Column 2, Lines 15-19]; and
    - = At least two first through-holes [note Figure 1 with at least two lamps as mentioned in Column 2, Line 2] formed on the first insulated body and each of the first through-holes receiving the first electrode of each of the lamps, the first electrode extending through the first through-hole to the first outward surface of the first insulated body and being electrically connected to the first conductive pattern; and

- A first connector [Column 2, Lines 15-19; e.g., Figure 4: (15)] installed on the first board to electrically connect the first electrodes that are coupled to the first board to an inverter that generates the first discharge voltage.

5. With regards to Claim 3, Ishida discloses a first terminal [Column 2, Lines 15], coupled to receive the first discharge voltage from the inverter and provide the first discharge voltage to the first connector [Column 2, Lines 15-19].

6. With regards to Claim 4, Ishida discloses the first connector [Figure 1: (28b)] being installed on the first conductive pattern of the first board [Column 2, Lines 6-14], and electrically connecting the first conductive pattern of the first board to the inverter through the first terminal [Column 2, Line 15].

7. With regards to Claim 5, Ishida discloses the first electrode is soldered [Figure 1: (28b)] with the first conductive pattern to be electrically connected thereto.

8. With regards to Claim 13, Ishida discloses a plurality of lamps [Column 2, Lines 1-2] and teaches there being four lamps [Figure 4].

9. With regards to Claim 35, Ishida discloses the first board [Figure 1: (28)] being disposed such that a major surface of the first board [Figure 1: (28a)] is substantially perpendicular to a longitudinal direction of each of the lamps [Figure 1: (27)].

10. With regards to Claim 36, Ishida discloses the first board [Figure 1: (28)] being intermediate the first lamp holder [Figure 1: (26)] and a terminal end of the first electrode [Figure 1: proximate (28b)].

11. Claims 29-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Ishida et al. (U.S. Patent 7,057,678 B2).

12. With regards to Claim 29, Ishida discloses a lamp assembly including:

- At least two lamps [Figure 1: (27)], whereby each of the lamps being of a fluorescent bulb type [Column 1, Line 43; Column 2, Line 1], which are commonly known in the art and inherently provide a fluorescent layer formed on an inner surface of a lamp body, a discharge gas disposed in the body, first and second electrodes [Figures 1: (29)] for providing the lamp body with first and second discharge voltages, respectively;
- A first lamp holder [Figure 1: (26)] having a pipe-shape, whereby a first end portion of the lamp is inserted into the pipe-shape and fastened to the first lamp holder;
- A first board [Figure 1: (28)] that makes contact with the first lamp holder and is electrically coupled to first electrodes of the lamps such that the first end portion of the lamp body is spaced apart from the first board, whereby the first board includes:
    - = An insulated body [Figure 1: (28)] having an inward surface [Figure 1: opposite (28a)] that makes contact with the first lamp holder and an outward surface [Figure 1: (28a)] that is opposite to the inward surface;
    - = At least one conductive pattern formed on the outward surface of the insulated body [Column 2, Lines 6-14 – inherent that (28a) would have a conductive pattern to electrically connect (29) with the inverter mentioned in Column 2, Lines 15-19] and electrically connected to the first electrode of each of the lamps; and

= At least two through-holes [note Figure 1 with at least two lamps as mentioned in Column 2, Line 2] formed on the insulated body and each of the through-holes receiving the first electrode of each of the lamps, the first electrode extending through the through-holes to the outward surface of the first insulated body and being electrically connected to the conductive pattern; and

- A connector [Column 2, Lines 15-19; e.g., Figure 4: (15)] installed on the conductive pattern to electrically connect the first electrodes that are coupled to the first board to an inverter that generates the first discharge voltage.

13. With regards to Claim 30, Ishida discloses a terminal [Column 2, Lines 15], coupled to the connector to receive the first discharge voltage from the inverter and provide the first discharge voltage to the connector [Column 2, Lines 15-19].

14. With regards to Claim 31, Ishida discloses the connector [Figure 1: (28b)] electrically connecting the conductive pattern of the first board to the inverter through the terminal [Column 2, Line 15-19].

15. With regards to Claim 32, Ishida discloses the first electrode is soldered [Figure 1: (28b)] with the conductive pattern to be electrically connected thereto.

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

17. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishida et al. (U.S. Patent 7,057,678 B2) as applied to Claim 1 above, and further in view of Saito et al. (U.S. Patent 6,441,874 B1).

Ishida discloses the claimed invention as cited above, but does not specifically teach the first lamp holder comprising of rubber.

Saito teaches a lamp holder [Figures 1-7: (9)] having a pipe-shape and comprising of rubber [Column 5, Lines 12-16].

It would have been obvious to one ordinarily skilled in the art at the time of invention to modify the lamp assembly of Ishida to incorporate the rubber pipe-shaped lamp holder of Saito to provide greater security to the fluorescent lamps, as well as prevent luminance drop via suppressing heat radiation at the electrode portions of the fluorescent lamps so as to secure sufficient amount of mercuric vapor in the whole of said lamps [see Saito: Abstract].

18. Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishida et al. (U.S. Patent 7,057,678 B2) as applied to Claim 1 above, and further in view of Oyokota et al. (JP 2002-132193 A).

Ishida does not specifically teach a second lamp holder having a pipe-shape, a second end portion of the lamp being inserted into the pipe-shape to be fastened to the second lamp holder; and a second board coupled to the second electrode to provide the second electrode with the second discharge voltage (re: Claim 7); wherein the second board includes a second insulated body having a second inward surface that makes contact with the second lamp holder and a second outward surface that is opposite to

the second inward surface; a second conductive pattern formed on the second outward surface of the second insulated body; and at least two second through-holes formed on the second insulated body, the second electrode extending through the second through-hole to the second outward surface of the second insulated body and being electrically connected to the second conductive pattern (re: Claim 8); a second connector installed on the second conductive pattern; and a second terminal, coupled to the second connector to receive the second discharge voltage from the inverter and provide the second discharge voltage to the second connector (re: Claim 9); wherein the second connector electrically connects the second conductive pattern of the second board to the inverter through the second terminal (re: Claim 10); and wherein the second electrode is soldered with the second conductive pattern to be electrically connected thereto (re: Claim 11).

Oyokota teaches a lamp assembly having at least two fluorescent lamps [Drawings 1, 4-5: (2)] with first and second electrodes that are coupled to first [Drawing 1: (9, 10, 11, 14)] and second [Drawing 1: (8, 10, 11, 14)] boards, respectively on either sides of the lamps, which provide first and second discharge voltages [Drawing 5] to the respective electrodes.

It would have been obvious to one ordinarily skilled in the art at the time of invention to modify the lamp assembly of Ishida to incorporate a second lamp holder coupled to the second electrode and a second board for providing the second electrode with the second discharge voltage, as principally taught by Oyokota, in order to provide a more simplified means for electrically controlling the lamp/illumination, as well as to

provide greater structural integrity for the lamps and facilitate manufacturing, assembly, and/or replacements of the lamps.

In addition, it would have been obvious to one ordinarily skilled in the art at the time of invention to modify Ishida to incorporate a second lamp holder, a second board, a second connector, and a second terminal, whereby the above components are identical with the first lamp holder, first board, first connector, and first terminal, since such a configuration is commonly known within the art, as demonstrated by Oyokota, and whereby it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

19. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishida et al. (U.S. Patent 7,057,678 B2) in view of Oyokota et al. (JP 2002-132193 A) as applied to Claim 7 above, and further in view of Saito et al. (U.S. Patent 6,441,874 B1).

Ishida discloses the claimed invention as cited above, but does not specifically teach the first lamp holder comprising of rubber.

Saito teaches a lamp holder [Figures 1-7: (9)] having a pipe-shape and comprising of rubber [Column 5, Lines 12-16].

It would have been obvious to one ordinarily skilled in the art at the time of invention to modify the lamp assembly of Ishida in view of Oyokota to incorporate the rubber pipe-shaped lamp holder of Saito to provide greater security to the fluorescent lamps, as well as prevent luminance drop via suppressing heat radiation at the

electrode portions of the fluorescent lamps so as to secure sufficient amount of mercuric vapor in the whole of said lamps [see Saito: Abstract].

20. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishida et al. (U.S. Patent 7,057,678 B2) as applied to Claim 29 above, and further in view of Saito et al. (U.S. Patent 6,441,874 B1).

Ishida discloses the claimed invention as cited above, but does not specifically teach the first lamp holder comprising of rubber.

Saito teaches a lamp holder [Figures 1-7: (9)] having a pipe-shape and comprising of rubber [Column 5, Lines 12-16].

It would have been obvious to one ordinarily skilled in the art at the time of invention to modify the lamp assembly of Ishida to incorporate the rubber pipe-shaped lamp holder of Saito to provide greater security to the fluorescent lamps, as well as prevent luminance drop via suppressing heat radiation at the electrode portions of the fluorescent lamps so as to secure sufficient amount of mercuric vapor in the whole of said lamps [see Saito: Abstract].

21. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishida et al. (U.S. Patent 7,057,678 B2) as applied to Claim 29 above, and further in view of Oyokota et al. (JP 2002-132193 A).

Ishida discloses the claimed invention as cited above, but does not specifically teach a second lamp holder to the second electrode to provide the second electrode with the second discharge voltage and a second board coupled to the second electrode,

wherein the second board and the second lamp holder have identical shapes with the first board and the first lamp holder, respectively.

Oyokota teaches a lamp assembly having at least two fluorescent lamps [Drawings 1, 4-5: (2)] with first and second electrodes that are coupled to first [Drawing 1: (9, 10, 11, 14)] and second [Drawing 1: (8, 10, 11, 14)] boards, respectively on either sides of the lamps, which provide first and second discharge voltages [Drawing 5] to the respective electrodes.

It would have been obvious to one ordinarily skilled in the art at the time of invention to modify the lamp assembly of Ishida to incorporate a second lamp holder coupled to the second electrode and a second board for providing the second electrode with the second discharge voltage, as principally taught by Oyokota, in order to provide a more simplified means for electrically controlling the lamp/illumination, as well as to provide greater structural integrity for the lamps and facilitate manufacturing, assembly, and/or replacements of the lamps.

In addition, Ishida obviously teaches a second board coupled to the second electrode and a second lamp holder, whereby the second board and the second lamp holder would have identical shape with the first board and the first lamp holder, respectively. Such a configuration is commonly known within the art, as demonstrated by the prior art cited to Oyokota. Lastly, it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON M. HAN whose telephone number is (571)272-2207. The examiner can normally be reached on 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason M Han
Examiner
Art Unit 2875

JMH
June 4, 2008

/Sandra L. O'Shea/
Supervisory Patent Examiner, Art Unit 2875